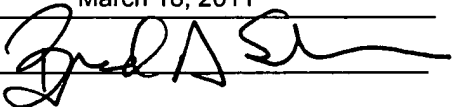







Doc Code: AP.PRE.REQ

PTO/SB/33 (07-09)  
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<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>		Docket Number (Optional) MSDI-1006/PC767.01						
<p>I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]</p> <p>on <u>March 18, 2011</u></p> <p>Signature <u></u></p> <p>Typed or printed name <u>Brad A. Schepers</u></p>		Application Number  10/695,068	Filed  October 28, 2003					
		First Named Inventor  Young et al.						
		Art Unit  3733	Examiner  Steven J. Cotroneo					
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <table border="0"><tr><td><input type="checkbox"/> applicant/inventor.</td><td rowspan="4"> Signature <u>Brad A. Schepers</u> Typed or printed name <u>(317) 238-6334</u> Telephone number <u>March 18, 2011</u> Date</td></tr><tr><td><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</td></tr><tr><td><input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>45,431</u></td></tr><tr><td><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____</td></tr></table> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>				<input type="checkbox"/> applicant/inventor.	 Signature <u>Brad A. Schepers</u> Typed or printed name <u>(317) 238-6334</u> Telephone number <u>March 18, 2011</u> Date	<input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)	<input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>45,431</u>	<input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____
<input type="checkbox"/> applicant/inventor.	 Signature <u>Brad A. Schepers</u> Typed or printed name <u>(317) 238-6334</u> Telephone number <u>March 18, 2011</u> Date							
<input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)								
<input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>45,431</u>								
<input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____								

<input type="checkbox"/> *Total of _____ forms are submitted.
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This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**


In re patent application of:	)	Before the Examiner:
Young et al.	)	Steven J. Cotroneo
	)	
Application Serial No. 10/695,068	)	Group Art Unit: 3733
	)	
Filed: October 28, 2003	)	Atty. Ref. No.:
	)	MSDI-1006/PC767.01
MULTI-AXIAL, CROSS-LINK CONNECTOR	)	
SYSTEM FOR SPINAL IMPLANTS	)	March 18, 2011

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In response to the final Office Action dated January 28, 2011 and the Advisory Action dated February 28, 2011, please consider the following. A Notice of Appeal and a Pre-Appeal Brief Request for Review are submitted herewith along with the requisite appeal fee of \$540 under 37 CFR 41.20(b)(1). No extensions of time or additional fees are believed to be due with regard to the filing of the Notice of Appeal and the Pre-Appeal Brief Request for Review. However, please provide any further extensions of time and charge any additional fees which may be necessary to Deposit Account No. 12-2424, but not to include any payment of issue/publication fees.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:	
March 18, 2011	_____
Date of Deposit	
Brad A. Schepers	_____
Name of Registered Representative	
	_____
Signature	
March 18, 2011	_____
Date of Signature	

The Advisory Action dated February 28, 2011 indicates that the response to the final Office Action filed on February 11, 2011 did not place the application in condition for allowance, but was entered for purposes of appeal. Accordingly, claims 1, 2, 4, 7, 8, 10-18, 21, 31-39, 41 and 43 are currently rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,136,003 to Van Hoeck et al. in view of U.S. Patent No. 3,399,433 to Faulkner, and claims 3 and 5 are currently rejected in further view of U.S. Patent No. 6,238,396 to Lombardo.

As an initial matter, the Appellant submits that Faulkner is clearly not analogous art to Van Hoeck, and that combining Faulkner and Van Hoeck is improper. Specifically, Faulkner discloses a clip for forming a looped noose in a flexible cable, and Van Hoeck discloses devices for interconnecting rigid rods in a spinal stabilization system which are in no way analogous or in any way related to the flexible cable clip of Faulkner. Although this observation should be evident on its face, the Appellant provides the following analysis in support of this position.

“In order to rely on a reference as a basis for rejection of an applicant’s invention, the reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.” MPEP §2141.01(a). The Appellant submits that a cable clip for forming a looped noose in a flexible cable is clearly not in the same field of endeavor as a spinal stabilization system for interconnecting rigid rods. As should be apparent, a cable clip for forming a looped noose in a flexible cable clearly fall outside of the field of spinal stabilization systems that interconnect/link a pair of rigid spinal rods. The Appellant further submits that a clip for forming a noose in a flexible cable is not reasonably pertinent to the particular problems concerning the interconnection/linking of a pair of rigid spinal rods. Indeed, a person of ordinary skill in the art faced with the task of designing a spinal stabilization system for interconnecting a pair of rigid spinal rods would not look to the field of cable clips that are specifically designed to form a looped noose in a flexible cable.

Nevertheless, the Office Action asserts that “Faulkner is concerned with providing a clip that is capable of receiving an elongated member. The rigidity of the elongate member is not a factor in the design of the clip itself.” (See pg. 5, ll. 19-21; emphasis added). The Appellant respectfully disagrees. Indeed, the noose cable clip 1 of Faulkner is specifically designed for use in association with a flexible cable 5 to form a looped noose in the flexible cable that wraps about and supports a load 8. (See Fig. 6). An end portion of the flexible cable 5 is engaged by the clip 1, an intermediate portion of the flexible cable 5 is wrapped back toward the clip to form

a looped noose, and the opposite end portion of the flexible cable 5 is threaded through the under-cut groove 6 in the clip 1 which bites into the flexible cable to lock the looped noose. As should be apparent, the cable clip 1 is designed to accommodate and bite into a flexible cable to form a looped noose, and was clearly designed for use in association with a flexible cable as a primary consideration (i.e., a flexible cable is needed to form the looped noose). The Appellant notes that a rigid rod does not have the requisite flexibility to form a looped noose, and the cable clip of Faulkner would therefore not be used in association with a rigid spinal rod. Additionally, in order for the flexible cable 5 to “bite into the undercut parts of the groove 5” (see col. 2, ll. 14-15 of Faulkner), the cable 5 must have a requisite degree of flexibility. Contrary to the assertion set forth in the Office Action that “[t]he rigidity of the elongate member is not a factor in the design of the clip itself” (see pg. 5, ll. 19-21), the Appellant submits that the cable clip of Faulkner is specifically designed for use with a flexible cable to form a looped noose.

Independent claim 1 recites, among other elements and features, a second hook including “a second internal surface having a curved portion including a raised ridge extending along said curved portion in a direction from the first end to the second end, wherein said second rod contacts said ridge”, and “a set screw . . . contacting said second rod and forcing said second rod against said ridge wherein said second rod is compressed against a crest of said raised ridge”.

The Office Action asserts that Van Hoeck discloses several of the features recited in independent claim 1, but admits that Van Hoeck “does not disclose including a ridge extending along a curved portion in a direction from the first end to the second end”. (See pg. 3, ll. 3-4). However, the Office Action nevertheless asserts that Faulkner discloses this feature and that “[i]t would have been obvious . . . to modify the device of Van Hoeck et al. (sic) with a ridge extending along the curved portion . . . in order to allow the hook to be wide enough to allow for the rod to be inserted into the hook.” (See pg. 4, ll. 1-4). The Appellant respectfully disagrees.

Van Hoeck discloses a connector 20 that includes a pair of opposite engaging portions 25, 26, each of which includes a receptacle 36 and a fixation surface 33. (See Figs. 3-5). Faulkner discloses a cable clip for forming a noose in a flexible cable 5 which includes a block 1 including an open sided groove 2 for receipt of an end portion of the flexible cable 5, and an open-sided and under-cut groove 6 for receipt of an intermediate portion of the flexible cable 5 wherein the under-cut groove 6 at the end of the block 1 bites into the cable 5 to hold the flexible cable 5 in a looped or noose configuration. (See Fig. 6). The Appellant submits that the

Faulkner/Van Hoeck combination fails to disclose or suggest that “said second rod contacts said ridge”, and that the set screw forces “said second rod against said ridge wherein said second rod is compressed against a crest of said raised ridge”, as recited in independent claim 1.

As indicated above, the Office Action admits that Van Hoeck fails to disclose “a ridge extending along the curved portion in a direction from the first end to the second end” with the one of the spinal rods in contact against the ridge, but nevertheless asserts that Faulkner discloses these claimed features. The Appellant respectfully disagrees with this assertion. As indicated above, Faulkner discloses a cable clip for forming a noose in a cable with the clip block 1 including an open-sided and under-cut groove 6 for receipt of an intermediate portion of the flexible cable 5 wherein the undercut portion of the groove 6 at the end of the block 1 bites into the cable 5 to hold the flexible cable 5 in a noose or looped configuration. (See Fig. 6).

However, as illustrated in Figure 6 of Faulkner, even assuming *arguendo* that the flexible cable 5 could somehow be construed as a rod and the undercut groove 6 could somehow be construed to define a raised ridge (positions which the Appellant traverse), the flexible cable 5 is not positioned “in contact against said ridge”, and the flexible cable 5 is also not forced “against said ridge” and “compressed against a crest of said raised ridge”, as recited in independent claim 1.

Even assuming *arguendo* that the under-cut groove 6 of the noose cable clip 1 of Faulkner could be construed as defining “a ridge”, as clearly illustrated in Figure 6, the flexible cable 5 is not “compressed against a crest of said raised ridge”. As should be appreciated and as pointed out in the Appellant’s previous response, the crest of a ridge constitutes the maximal point or line formed by the meeting of two sloping surfaces. With regard to the cable clip 1 of Faulkner, even assuming *arguendo* that the cable clip 1 could be construed as defining a crest or ridge, as illustrated most clearly in Figure 4, the maximal point along the curved surface defined by the left side of the under-cut groove 6 (the point defining the narrowest width along the length of the groove 6) would constitute the crest of such a ridge. However, as illustrated in Figure 6, the flexible cable 5 is clearly not forced into contact with the crest or maximal point along the groove 6. Indeed, the flexible cable 5 does not in any way contact the crest or maximal point of the inner surface defining the under-cut groove 6, but is instead bitten into by the undercut region of the under-cut groove 6 (i.e., the lower end of the under-cut groove 6).

Moreover, the Appellant is cognizant of the assertion set forth in the final Office Action that “the length of figure 4 is the ridge and the rod of Faulkner is shown located as close to the

crest as applicants own figures show”. (See pg. 6, ll. 20-22). Additionally, the Office Action refers to the current application and asserts that “[i]n Figure 28 the rod is not located on the apex of the ridge . . . but appears similar to figure 6 of Faulkner”. (See pg. 6, ll. 9-10). Once again, the Appellant respectfully disagrees with these assertions. First, the statement set forth in the Office Action that “the rod is not located on the apex of the ridge . . . but appears similar to figure 6 of Faulkner” appears to constitute an implicit admission that the flexible cable 5 of Faulkner is not located at the apex/crest defined by the under-cut groove 6 in the cable clip 1, and is not compressed into contact with the apex/crest defined by the under-cut groove 6. Moreover, the Office Action’s reference to Figure 28 of the current application and the corresponding assertion that “the rod is not located on the apex of the ridge” is also misplaced. Indeed, Figure 28 clearly illustrates that the rigid spinal rod 367 is positioned immediately adjacent and in contact with the crest/apex of the ridge 368 formed by the inclined interior surfaces 362. This feature is what allows the rigid spinal rod 367 to be positioned at variable angular orientations relative to the rigid spinal rod 369 and relative to the connector. Accordingly, contrary to the assertion set forth in the Office Action, Faulkner fails to satisfy the admitted deficiencies of Van Hoeck. Since the subject matter of independent claim 1, as a whole, has not been accounted for by the Van Hoeck/Faulkner combination, a *prima facie* case of obviousness has not been established.

Independent claim 13 recites, among other elements and features, “a raised ridge extending from the first end to the second end, wherein the second spinal rod is locked in contact with said raised ridge and wherein said second rod is compressed against a crest of said raised ridge”, and independent claim 33 similarly recites “a raised ridge extending along said curved portion in a direction from said first end to said second end” and “said second elongated support rod is locked in contact with said raised ridge of said saddle and wherein said second elongated support rod is compressed against a crest of said raised ridge”. The rejections of independent claims 13 and 33 as being obvious over the Van Hoeck/Faulkner combination are submitted to be improper for reasons similar to those set forth above with regard to independent claim 1.

In summary, a *prima facie* case of obviousness has not been established with regard to independent claims 1, 13 and 33 and the claims depending therefrom.

Respectfully submitted,

By: 

Brad A. Schepers; Reg. No. 45,431